

Yogurt Powder Ingredients

Yogurt powders are becoming increasingly popular ingredients for a variety of applications. They add a unique dairy flavor and impart a "nutritious" connotation to a wide variety of food applications.

Although there is a standard of identity for yogurt, currently there is no standard of identity for yogurt powder in the U.S. Traditionally, yogurt powder has been manufactured by adding cultures to nonfat milk, allowing the product to reach a specified pH, and then drying the product.

There are also a number of blended dairy ingredients that provide similar flavor and functionality to traditional yogurt powder. These blended yogurt powders may contain some combination of the following ingredients: cultured nonfat milk, cultured whey, cultured whey protein concentrate, cultured dairy solids, nonfat dry milk, whey powder, lactic acid, and natural and artificial flavors. Silicon dioxide may be added as an anti-caking agent. There will be minor variations in flavor and functionality between traditional yogurt powders, depending on the cultures used and pH achieved before drying. Blended cultured dairy solids may exhibit even greater variability, so food and beverage manufacturers are encouraged to test individual yogurt powders to select the optimal ingredient for their specific application.

Typical Composition of Yogurt Powders (%)

Ingredient	Moisture	Fat	Protein	Lactose	Ash
Yogurt Powder	3.0 - 5.0	1.25 - 2.0	33.0 - 36.0	50.0 - 51.5	7.0 - 8.0
Cultured Dairy Solids	3.0 - 5.0	Trace - 2.0	22.0 - 33.0	52.0 - 66.7	7.0 - 8.0

Applications and Beneficial Features

Yogurt powders add a unique dairy flavor to food applications, including beverages, confections and dips. They can be used in place of fresh yogurt for beverages and dips. They are frequently used in the manufacture of a confectionery coating for pretzels, dried fruit, cereal and other snack items. They also can be applied topically as a coating for cereals and snacks.

Physical Properties

pH: The pH of rehydrated yogurt powders is typically in the range of 4.7 to 5.1.

Titrateable Acidity: The titrateable acidity of yogurt powders is typically in the range of 5.8 percent to 7.4 percent. Titrateable acidity measures the lactic acid developed as a result of the metabolic breakdown of lactose.

Color: Yogurt powder ranges in color from off-white to pale yellow color. Rehydrated yogurt powders range in color from a milky white to a pale opaque yellow.



U.S. Dairy
Export Council

Improving the World's Dairy Markets